### **OBSERVATION REPORT #40 – With Responses**

Verizon-NJ (VZN-NJ) improperly handled the end-to-end maintenance and repair process for DS1 type circuits in New Jersey.

### **Issue**

KPMG Consulting placed faults on four different DS1 circuits as a part of its test of VZN-NJ's end-to-end maintenance and repair process. Two of these tickets were opened for faults in Jersey City, while the other two were placed on DS1s in New Brunswick. All the faults were assigned for handling by VZN-NJ to the Regional Resale Service Center ("the center") at Hamilton Square in Trenton, NJ.

DS1 type circuits fall under the category of special circuits, and thus are subject to a 4 hour repair commitment. Upon repair of the problem, VZN-NJ's M&Ps state that the CLEC is to be notified that the ticket has been closed.

Two of the faults were placed on DS1s located in Jersey City on 10/24/00. On the first circuit, /DHSA/185169, the trouble was a coding change from B8ZS to AMI. This problem was called in to the RCMC as "noise/clicking on the line and problems running data;" it was assigned trouble ticket number RS000204. The second fault, an open at the cross connect, was inserted on circuit /DHSA/185166. KPMG Consulting described this trouble to the RCMC as a dead circuit and was given the ticket number RS000203. Both of these tickets were closed outside the repair commitment time of four hours. In addition, VZN-NJ failed to inform KPMG Consulting that either of these tickets were closed.

Circuit ID	Trouble Ticket Number	Ticket Opened	<b>Ticket Closed</b>	Total Repair Time
/DHSA/185169	RS000204	10/25/00 9:49	10/25/00 20:49	11 hrs
/DHSA/185166	RS000203	10/25/00 9:46	10/25/00 20:39	10 hrs 53 mins

RS000204 was actually closed in error and the trouble on the circuit was never fixed. In fact, the VZN-NJ technician described the cause of trouble as an open wire at the demarc, which would have caused a dead circuit (not just trouble transmitting data) and was not the fault inserted and verified by KPMG Consulting.

The second trouble, ticket number RS000203, was accurately fixed by the technician; however, a second ticket was created on the same trouble at 16:00 on 10/25/00 by the center. This ticket, RS000210, was opened despite the fact that the original ticket had not been fully dealt with. KPMG Consulting had to request that the second ticket be cancelled even after the original trouble ticket for that circuit, RS000203, had been closed.

VZN-NJ was able to meet its repair commitment time on both the faults placed on DS1s in New Brunswick; however, the two tickets were coded incorrectly for the trouble

disposition. On the first DS1 circuit, /DHSA/185171 (trouble ticket number RS000223), KPMG Consulting inserted a mapping problem in the DACS frame associated with the DS1. This effectively opened the circuit and, although the mapping problem was rectified, the disposition of the repair was reported as "channel unit replaced." There were no channel units provisioned on this DS1.

The second DS1 in New Brunswick, /DHSA/185168, was compromised by changing the signaling from B8ZS to AMI. This would have exhibited noise and/or clicking as well as difficulty transmitting data had the circuit been monitored. KPMG Consulting reported this trouble as noise on the channel and was given the ticket number RS000222. This ticket was given a disposition of "No Trouble Found" (NTF) and the technician explained the cause of the trouble as a lack of customer equipment. Despite the incorrect trouble identification by the VZN-NJ technician, KPMG Consulting was able to verify that this trouble was also correctly isolated and repaired.

### **Assessment**

The repair and maintenance of DS1s is particularly important to CLECs because of the volume of service carried by these circuits. VZN-NJ's inability to rectify a DS1 fault quickly and accurately affects a larger number of CLEC end-users than does a problem on a single POTS line. VZN-NJ's inability to effect repairs within the required time frame can adversely impact large numbers of CLEC customers for extended periods, damaging the CLEC customer relationship.

## 11/30/00 Verizon Response

All four trouble tickets cited in this observation were on DS1 circuits which were not working circuits because there was no customer equipment (CSU) on the line. At no point did the "customer" inform Verizon that there was no customer equipment on the line. As a result, tests done on the circuits indicated an "open" on the circuit causing dispatches to find cause for the "open" condition. When dispatched out, the technicians found no CSU. The additional dispatch lengthened the response time for these tickets, and in some cases, understandably caused the technician to close the ticket. When examining the detail of the work done on the ticket, the conclusion can easily be reached that if these were "normal" DS1 circuits, the trouble would have been repaired, and closed, within the four hour objective time.

RS000203 – The NOC found the physical cross connect problem, it was fixed, the DI ticket was cleared and returned to be closed in WFA/C within 2 hours of the trouble ticket being opened. However, when it was determined that the circuit was still testing open, the center decided that the ticket had been closed in error and opened ticket RS000210. Prior to that ticket being dispatched, the customer requested that the ticket be closed. Again, the only reason the circuit was still testing open was that it did not have customer equipment (CSU) installed, a situation unique to this test. If this was a normal

DS1 circuit, the ticket would have been closed within two hours, and no second ticket would have been opened.

RS000204 – The initial dispatch inside was returned with a finding that there was an "open" condition on the circuit within three hours of the trouble ticket being opened. Logically, the problem causing the "open" condition should be addressed first. After dispatching out to determine the cause for the "open" condition, it was found that there was no customer equipment installed (CSU), and the ticket was closed. A situation unique to this test caused a second dispatch, lengthening the duration of the ticket being open beyond the objective time. The note regarding "found broken wire at the demarc" should have been recorded on ticket RS000203. That ticket was opened within five minutes of this ticket, for the same customer, in the same central office (CO), on the same connecting block. It was obviously a valid finding, but in the midst of the confusion related to these simultaneous tickets, a clerical error was made and it was entered on the wrong ticket..

RS000222 – this ticket was not closed for no trouble found, but for CPE, which is a valid finding, since the circuit was not working because there was no customer equipment (CSU). If this was a normal DS1 this would not have occurred.

RS000223 – The mapping problem was fixed within the objective time. When the circuit still tested "open" the customer was called, and approved a dispatch out. This was an unnecessary dispatch since it was testing out only because the test circuit did not have customer equipment (CSU) on the circuit. There was no note on the ticket about a "channel unit replaced". If this DS1 had working CSU, the ticket would have been closed after the mapping problem was fixed.

### 12/7/00 KPMG Consulting Response

No Customer Equipment (CSU) -- All of the DS1s in this test bed were provisioned with Smart jacks. A Smart jack allows a RMA to loop the circuit prior to the CSU. By utilizing a Smart Jack the RMA is capable of isolating the fault regardless of the condition of the customer equipment. Typically a CLEC would remove the CPE from the line to test the circuit and discover a problem with the line.

RS000203 – The NOC should not have closed out this ticket until all the troubles on the line were fixed. Even though the technician successfully repaired one trouble, the NOC was unable to loop the Smart jack. The trouble ticket was opened at 9:46 AM, but it was not until 3:05 pm, more than 4 hours after the ticket was opened, that the NOC called KPMG Consulting to state that it was unable to loop the Smart jack. At 4:05pm, Verizon-NJ requested permission to dispatch a technician out. The trouble inserted by KPMG Consulting was fixed and this ticket was closed out at 8:39 pm according to the RETAS trouble history.

RS000210 – This second ticket was opened despite the fact that the original ticket (RS000203) for this trouble was still open and being worked.

RS000204 – Verizon technicians failed to complete the coding change from B8ZS to AMI to correct this trouble. The trouble ticket generated by KPMG Consulting did not identify the trouble as an open circuit. The ticket was created as a "problem running data."

This ticket was opened at the same time as ticket RS000203. Initially, KPMG Consulting attempted to enter the ticket into RETAS; however, at the time RETAS was down and did not recognize the circuit ID format for DS1 type circuits. KPMG Consulting called the VZN Help Desk and the representative stated that RETAS was having problems and offered to enter the troubles manually. Verizon does acknowledge that an error was made in its response.

RS000222 – The trouble on this DS1 (a coding change) was repaired successfully. KPMG testers verified that the Verizon technician had changed the coding from AMI-D4 to B8ZS. Since the technician found the trouble and repaired it, the ticket should not have been closed as "No Trouble Found."

RS000223 –After conducting additional analysis based on Verizon-NJ's response, KPMG Consulting agrees that the Verizon RMA handled this transaction in a proper manner. This trouble will be entered into the results report as a successful transaction.

KPMG Consulting believes that a retest of the end-to-end maintenance and repair process for DS1 troubles is necessary at this time.

# 12/21/00 Verizon Response

Below Verizon presents a clarification of its initial response. Verizon does not believe that a retest is warranted based on the information presented and actions described below.

RS000203/210 – Within the four hour objective time, a missing cross connection was found and fixed, loop back testing to the multiplexor was successfully performed, a circuit test showed the circuit was still not carrying data, and a voice mail was left for the customer about the test results, and to seek further instructions. Later that day another message was left for the customer indicating the need to dispatch out since the loop back test was successful to the smartjack but the circuit test still showed the circuit carrying data. A dispatch out would enable inspection of the customer end of the circuit. The RRSC then incorrectly closed this ticket on 10/25/00. After realizing the ticket had been closed in error the next morning, the RRSC technician opened ticket RS000210 and backdated it to the receipt time of ticket RS000203. When preparing to dispatch the ticket out, a call from the customer was received, and instructed the technician to close the ticket. While the center technician handling the original ticket closed it in error, they "fixed" their mistake appropriately. The field technicians all performed their work appropriately. In Verizon's view, this clerical error does not warrant a retest.

RS000204 – Initial circuit testing found that the circuit was not carrying data. Within the four hour objective time, the initial dispatch resulted in a good loop back test to the multiplexor, and a voice mail left with the customer to share test results and obtain authorization to dispatch out. When subsequently speaking to the customer, the customer was also advised that a successful loop back to the smartjack had also been conducted. Following authorization to dispatch out a field technician reported that a broken cross connection at the demarcation point at the customer premise was reconnected and the circuit tested okay. A voice mail was left for the customer. It appears that the center technician failed to test the options/coding. A memo has been distributed within the center responsible for this testing, reinforcing the requirement to test options documented within existing M&Ps.

RS000222 – Initial circuit testing found that the circuit was not carrying data, and a successful loop back test was conducted to the smartjack and the customer was called, and authorization to dispatch out was received. The field technician that was dispatched out reported that there was no CSU, explaining why the circuit was not carrying data. This ticket was never dispatched to a center or technician able to change options/coding. It is apparent that for whatever reason the fault that was to be inserted on this circuit was not properly inserted.

RS000223 – The mapping problem was fixed within the objective time. When the circuit still tested "open" the customer was called, and approved a dispatch out. This was an unnecessary dispatch since it was testing out only because the test circuit did not have customer equipment (CSU) on the circuit. There was no note on the ticket about a "channel unit replaced". If this DS1 had working CSU, the ticket would have been closed after the mapping problem was fixed.